USER MANUAL

MODEL NUMBER:
FI-BP-15N
FI-BP-15NK
FI-BP-15NV
AND RELATED UNITS

15 Gallon Battery-Powered Portable Foam Unit

English (Original Instructions)

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

WARNING

Read this manual completely and understand the machine before operating or servicing it.

- Read all instructions before installing or operating unit.
- Always wear appropriate personal protective equipment (PPE) when operating or servicing unit.
- Always follow all chemical safety precautions and handling instructions provided by the chemical manufacturer and Safety Data Sheet (SDS).
- Never use unit if it is damaged or leaking.
- Always disconnect the battery before opening the unit back plate or servicing the unit.
- Do not use unit if the battery cover is not in place. Contact with chemicals can damage the battery.
- Avoid excessive use of discharge ball valve. Repetitive discharge in short bursts can cause overheating. Apply foam evenly without constant starting and stopping.
- Avoid foam or spray coming into contact with the unit. Contact with chemicals can damage the battery and other electrical components.
- Never point the discharge wand at yourself, another person, or any object you do not want covered in chemical.
- Always depressurize unit after use (as described in the After Use Instructions). Always store unit depressurized, with the discharge trigger gun or ball valve in the closed position.
- Do not exceed a fluid temperature of 100˚F (37˚C).
- Always flush the unit with fresh water for 5 minutes when switching from an alkaline to an acid or an acid to an alkaline.
- To prevent premature battery failure, do not store battery in a depleted state for long periods of time. Do not recharge battery until it has been used to power the unit for a minimum of 30 minutes of use.

PROTECT THE ENVIRONMENT

Please dispose of packaging materials, old machine components, and hazardous fluids in an environmentally safe way according to local waste disposal regulations.

Always remember to recycle.

*Specifications and parts are subject to change without notice.

OPTIONS	
	Pump Seal Material
FI-BP-15N	Santoprene (**standard**)
	Viton **(V)**
	Kalrez **(K)**

Add bold option codes to item number as shown. For standard options, no option code is needed.

Examples:

- FI-BP-15N (standard unit with Santoprene pump seals)
- FI-BP-15NV (unit with Viton pump seals)

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

REQUIREMENTS	
Liquid temperature range	40-100˚F (4.4-37˚C)
Electrical requirements	120 VAC at 60 Hz, 1 amps (GFCI protected outlet) for battery charger only
Operating voltage	12 VDC
Chemical compatibility	Chemical products used with this equipment must be formulated for this type of application and compatible with unit materials and pump seals. For more information on chemical compatibility, consult the manufacturer or SDS for your product or contact our customer service department.

SPECIFICATIONS	
Power type	Battery
Battery charge time (from full depletion)	7.5 hours
Battery run time (from full charge)	Up to 2 hours of non-continuous run time
Chemical pickup type	Draws from pre-mixed solution
Number of products unit can draw from	One product
Suction line length/diameter	3/8 in. (9.5 mm) inside diameter
Capacity	15 gallons (3.78 liters)
Discharge hose diameter/length	15 ft. (4.6 m) hose, with 3/8 in. (9.5 mm) inside diameter
Discharge wand/tip type	Stainless steel wand with 40º fan tip and ball valve
Output distance	5-6 ft. (1.52-1.83 m)
Output volume	4-5 gal/min (15-18.93 l/min) of foam
Flow rate*	2 gal/min (7.6 l/min)
Pump seals	Santoprene, Viton, or Kalrez
Wheel type	Two 10 inch non-marking wheels

*Dilution rates and flow rates given are based on chemical with viscosity of water and factory air pressure settings.

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

Operation Instructions:

1. Follow all instructions from the chemical manufacturer. Fill the tank with water and the advised percentage of chemical concentrate.
2. Press the power button (PBS-12V) to turn the unit ON.
3. Point the discharge wand in a safe direction and slowly open the discharge ball valve (HV60) to activate the unit.
4. While the unit is running and discharging product, adjust the needle valve (NV18), located inside the control box, to regulate the wetness or dryness of the foam:
   a. Close needle valve completely in clockwise direction.
   b. Open needle valve in counter-clockwise direction 3 complete turns.
   c. Continue to open valve in ¼ turn increments allowing 30 seconds between adjustments until proper consistency of foam is achieved.

After Use Instructions:

1. Flush the unit with fresh water for 5 minutes.
2. Press the power button (PBS-12V) to turn the unit OFF, and open the discharge ball valve (HV60) to relieve any pressure remaining in the system.
3. Close the discharge ball valve (HV60) after all pressure has been relieved from the system. Store the unit with the ball valve in the closed position.

Maintenance Instructions:

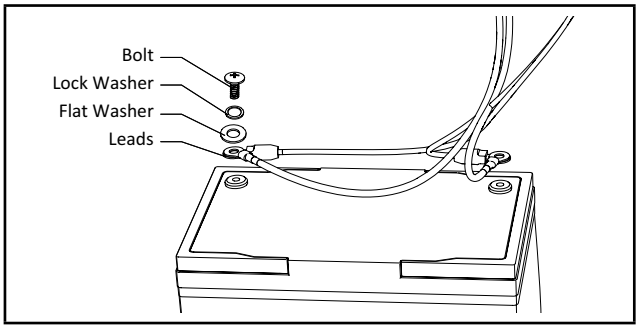
To keep your foam unit operating properly, periodically perform the following maintenance procedures:
Note: Before performing any maintenance, ensure that the unit has been turned OFF and depressurized according to the "After Use Instructions" above. Always disconnect the battery before opening the unit back plate.

- Inspect the air pump (P56/P56K/P56V) for wear and leaks.
- Inspect all hoses for leaks or excessive wear. Make sure all hose clamps are in good condition and properly secured.
- Check the suction line and strainer (STR38-IL) for debris or blockages, and clean as needed.

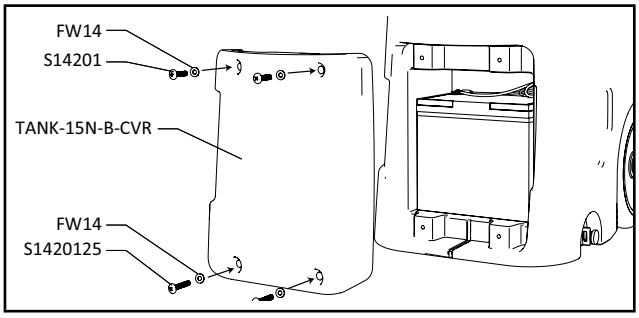
Battery Instructions

To Install battery:

1. Remove battery from packaging.
2. Verify that the power button (PBS-12V) is in the OFF (extended) position.
3. Verify the battery charger is not connected to charge port and not plugged into a power outlet.
4. Remove cover on body of the unit and set aside.
5. Position the battery inside the cavity in front of the unit.
6. Connect red lead to the red terminal and the black lead to the black terminal. (Warning: It is important to connect the leads to the correct terminal. Connecting battery incorrectly may cause irreparable damage to the battery.)
7. Put lock washer onto bolt first, follow by flat washer. Tighten bolt into battery to secure the leads in place.



8. Place cover back onto the unit. Secure cover by using shorter screws (S14201) into the top inserts, and longer screws (s1420125) in to the bottom inserts. (Warning: Inserting the incorrect screw can cause irreparable damage to the rotomolded tank).



To charge battery:

1. Verify that the power button (PBS-12V) is in the OFF position.
2. Verify the battery charger is not connected to charging port on unit, plug the charger into a GFCI protected 110 VAC power outlet.
3. Press MODE button on charger until correct mode is selected. Blue LED under 12V Cold is the correct mode.
4. With charger in the correct mode, plug charger (BC12V-NC72) into the charging port (BCP12V).
5. Do not remove charger until green light appears under 100% on the battery charger.
6. After battery has been charged, disconnect charger from charging port by removing plug from charger port. Do not unplug by pulling wire.
7. Replace the protective cap on the charging port.

Note: To prevent premature battery failure, do not store battery in a depleted state for long periods of time.

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

Troubleshooting Instructions:

- Check to ensure the discharge hose is uncoiled properly, and that there are no kinks that could obstruct fluid flow.
- If needle valve (NV18) valve is open too far, the pump (P56/P56K/P56V) will cycle improperly due to lack of air pressure. If this occurs, reset needle valve as described in Operation Instruction #4.
- Make sure proper foaming chemical and concentration is being used.
- If air passes through the pump (P56/P56K/P56V) without cycling, the pump needs to be replaced.
- If foam comes out wet, no matter where the needle valve (NV18) is positioned, the check valve (CV14QF) may need to be replaced.
- Check for plugged strainer (STR38-IL). Replace strainer if necessary. Strainer must be used.
- Check the mixing material (MIX2) by removing the SMQC-FT to acess the mixing material. If the mixing material has a lot of foreign particles in it, make sure the strainer (STR38-IL) is still in place. Clean and replace mixing material.

BATTERY TROUBLESHOOTING GUIDE		
PROBLEM	**CAUSE**	**SOLUTION**
Power light will not turn on	• Blown fuse	• Replace fuse (FU40-ATO)
	• Battery leads are backwards or disconnected	• Connect leads to correct terminals
Power switch light will not stop blinking	• Depleted battery	• Completely recharge battery
	• Bad battery	• Replace battery (BSLA-12V55)
	• Bad control relay	• Replace control relay (LVRC-12V-40F)
Power switch light is on but unit is not running (when it has previously been operating)	• Unit overheating from extended use	• Turn unit off and let cool at least 1 hour
Battery will not completely charge	• Bad battery	• Replace battery (BSLA-12V55)
	• Bad charger	• Replace charger (BC12V-NC72) or charing port (BCP12V)
Battery discharges too quickly	• Battery was stored in depleted state for long periods of time	• Replace battery (BSLA-12V55)
	• Battery has reached life expectancy	• Replace battery (BSLA-12V55)
	• Battery was charged and run for short periods of time (not allowed to fully charge or discharge)	• Replace battery (BSLA-12V55)

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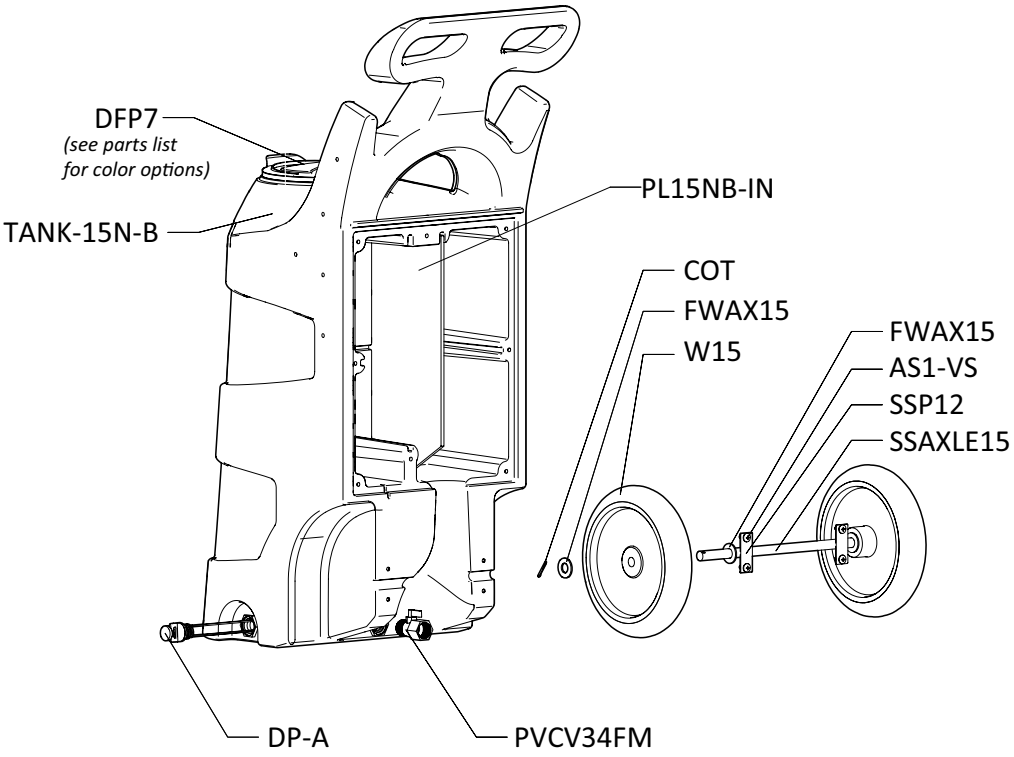
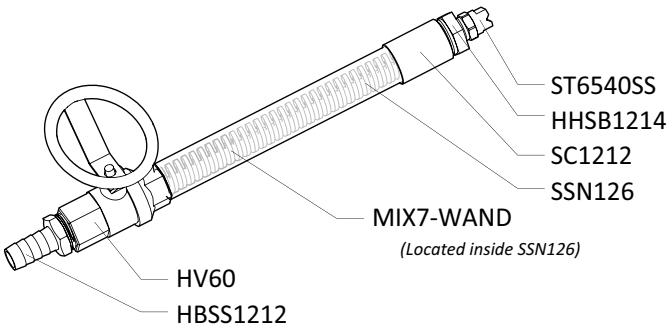
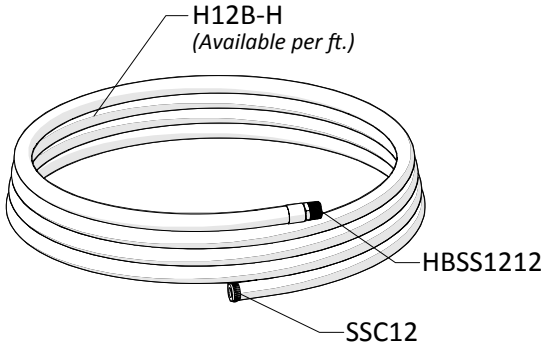
TANK ASSEMBLY
ITEM NUMBER: TANK-15N-B-A



WAND ASSEMBLY
ITEM NUMBER: SSWA-BP

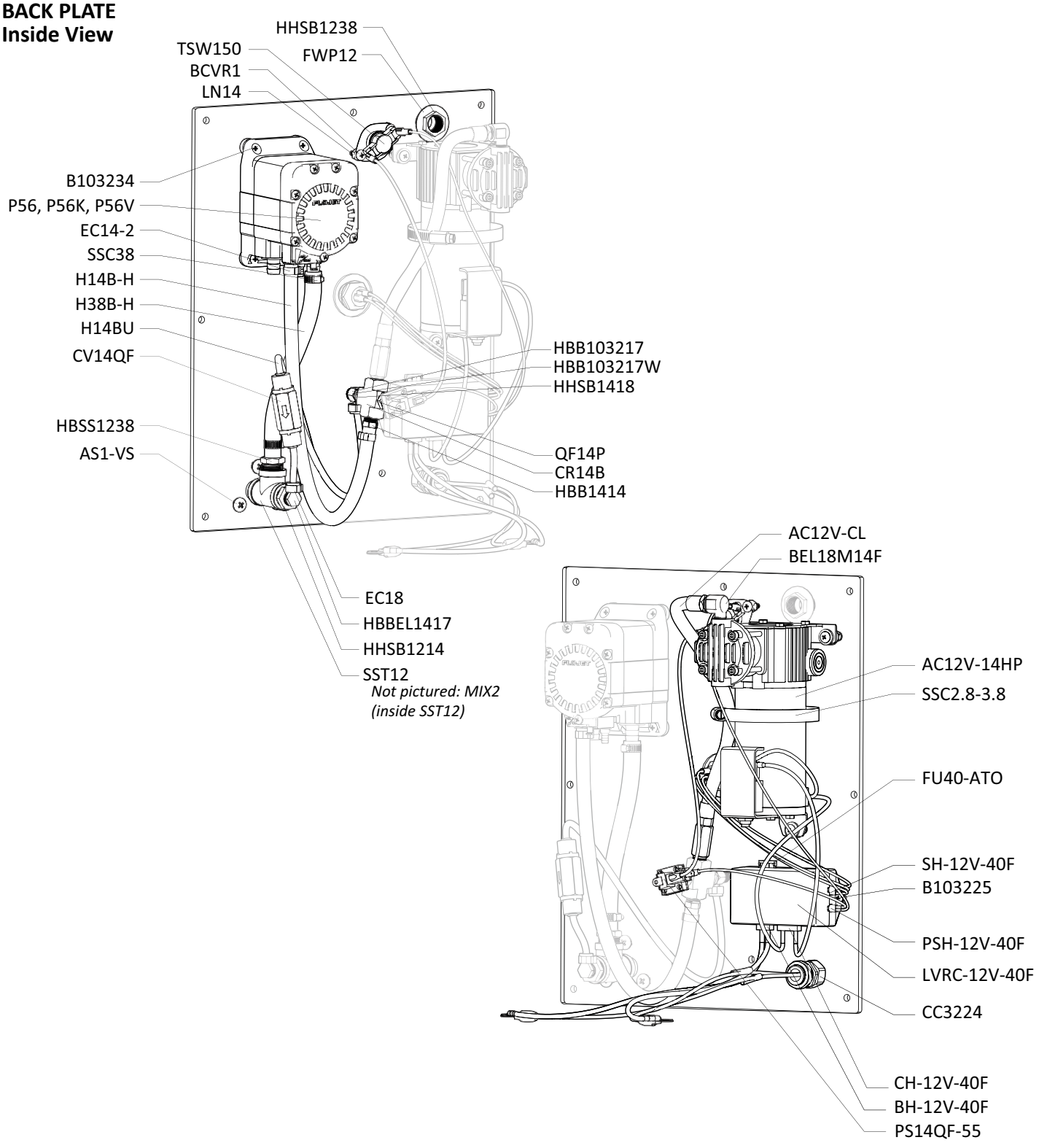


DISCHARGE HOSE
ITEM NUMBER: H12-15



READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

BACK PLATE
Inside View



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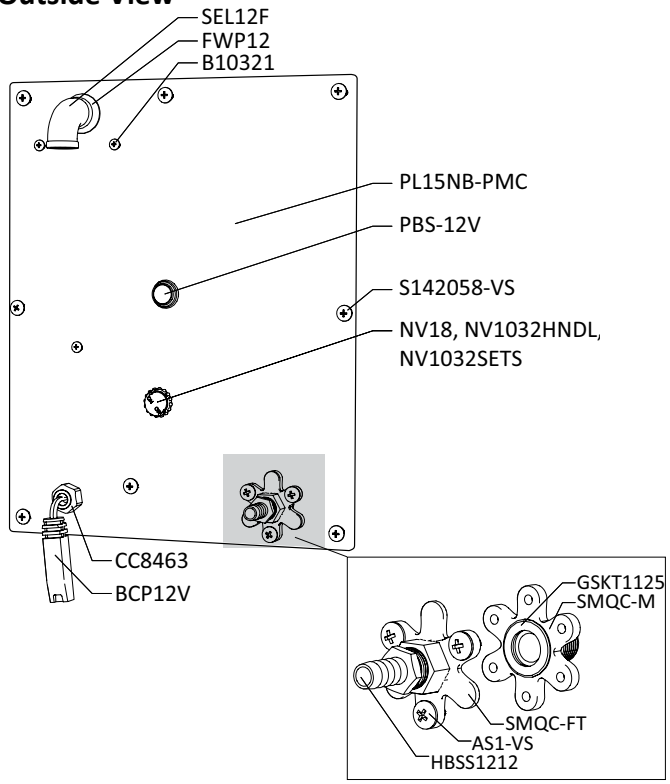
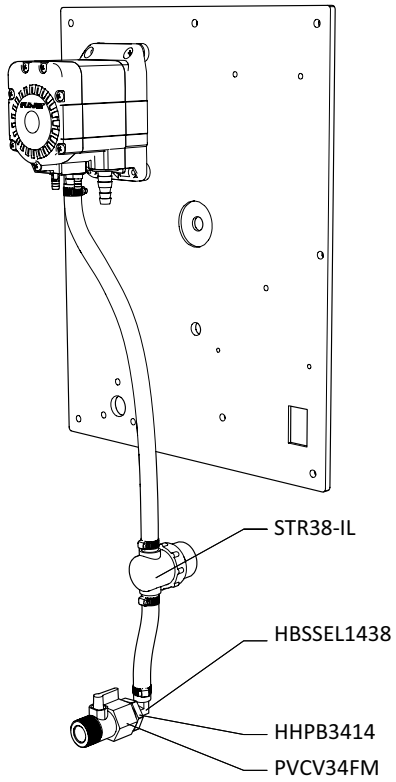
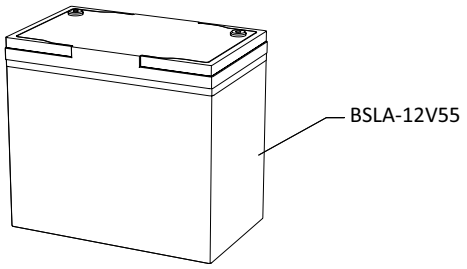
BACK PLATE
Outside View

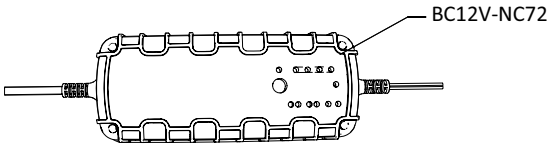


SUCTION LINE



BATTERY COMPONENTS





ITEM NUMBER	DESCRIPTION
AC12V-14HP	BARE COMPRESSOR DC 12V 1/4HP
AC12V-CL	COMPRESSOR LEAD FOR AC12V-STAINLESS
AS1-VS	1/4-20 X 1/2 PHIL TRUSS MACH SCREW 19-8 W/516 ORANGE VIBRASEAL PATCH
B10321	10-32 X 1 PHIL TRUSS MACH SCR 18-8
B103234	10-32 X 3/4 PHIL TRUSS MACH SCR 18-8
B8X58	8-15 x 1/2 FLAT PHIL TY-A 18-8 PLN
BC12V-NC72	7.2 AMP 12V BATTERY CHARGER
BCP12V	BATTERY CHARGING PORT FOR BC12V-NC72
BCVR1	10-32 X 1/2 PHIL PAN HEAD SS
BEL18M14F	BRASS ELBOW 1/8IN MPT X 1/4IN FPT

BH-12V-40F	BATTERY HARNESS FOR LVRC-12V-40F-BLACK AND RED WIRES
BH-CP-10F	BATTERY HARNESS TO CHARGING PORT CONNECTOR - 10 AMP FUSE
BSLA-12V55	55 AMP HOUR SEALED LEAD ACID BATTERY
CC3224	LTC BLACK 1/2 NPT
CC8463	1/2in NPT BLACK LOCKNUT
CH-12V-40F	COMPRESSOR HARNESS FOR LVRC-12V-40F-BROWN AND YELLOW WIRES
COT	1/8 X 1 COTTER PIN 18-8 S/S
CR14B	1/4 FEMALE BRASS CROSS
CV14QF	PVC HAST QF CHECK VALVE
DFP7	7 INCH HINGED CAP ASSEMBLY - INCLUDES BLACK CAP, LID FLANGE AND HINGE PIN

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DFP7-C	7 INCH FILL CAP POLYETHYLENE BLACK
DFP7-F	7 INCH TANK LID FLANGE POLYETHYLENE
DFP7-PIN	HINGE PIN FOR DFP7-C & DFP7-C
DFP7-C-BL	7 INCH FILL CAP POLYETHYLENE BLUE PANTONE
DFP7-C-GN	7 INCH FILL CAP POLYPRO GREEN PANTONE
DFP7-C-RD	7 INCH FILL CAP POLYETHYLENE RED PANTONE
DFP7-C-YL	7 INCH FILL CAP POLYETHYLENE YELLOW PANTONE
DP-A	DRAIN PLUG ASSEMBLY
DP	FRONT DRAIN PLUG FOR PORTABLE UNIT POLYETHYLENE
DP-G	FKM LATHE CUT 60 DUROMETER FKM
EC12	OETIKER CLAMP 21.0-706R
EC14-2	OETIKER CLAMP 13.8
EC18	OETIKER CLAMP - 11.3
F12SS	STAINLESS .875 ID FERRULE FOR 1/2 INCH HOSE
FW14	1/4 X 5/8 OD FLAT WASHER 18-8 PLN
FWAX15	FLAT AXLE WASHER
FWP12	7/8 ID X 1.5 OD X 0.05 THK SSFW
GSKT1125	VITON 1/16 in THICK-.75 in ID-1.125 IN OD
GSKT-7R70-12	BLACK SOFT URETHANE FOAM GASKET TAPE - 1/2" WIDE x 3/16" THICK - ACRYLIC ADHESIVE
H12B-H	1/2 INCH BLUE HOSE - Available per ft.
H14B-H	1/4 INCH BLUE HOSE - Available per ft.
H14BU	1/4in OD BLUE POLYURETHANE TUBING - Available per ft.
H14C	1/4in ID CLEAR POLYVINYL TUBING - Available per ft. (3/8 in OD)
H38B-H	3/8 INCH BLUE HOSE - Available per ft.
HBB103217	10-32 B4 HOSE BARB
HBB103217W	FIBER WASHER FOR HBB103217 - W/ BARB
HBB1414	BRASS 1/4 X 1/4 HOSE BARB
HBBEL1417	1/4in L BARBED FITTING - NICKEL PLATED
HBSS1212	STAINLESS HOSE BARB 1/2 X 1/2
HBSS1238	STAINLESS HOSE BARB 1/2mpt X 3/8 barb Tariff 8479.90.9496
HBSSEL1438	STAINLESS HOSE BARB ELBOW 1/4 INCH NPT X 3/8 HOSE BARB
HHPB3414	HEX HEAD POLY REDUCER BUSHING 3/4 X 1/4
HHSB1214	HEX HEAD S.S. REDUCER BUSHING 1/2 X 1/4
HHSB1238	HEX HEAD S.S. REDUCER BUSHING 1/2in X 3/8
HHSB1418	HEX HEAD S.S. REDUCER BUSHING 1/4 X 1/8
HV60	1/2in STAINLESS BALL VALVE - w/ WELDED NUT
LN1032	10-32 NM NYL INS LOCKNUT 18-8 PLN
LN14	1/4-20 NE NYL INS LOCKNUT 18-8 PLN
LVRC-12V-40F	LOW VOLTAGE RELAY CONTROLLER - 40 AMP BUILT IN FUSE
FU40-ATO	40 AMP FUSE-ATO
LVRC-12V-40F-P	LOW VOLTAGE RELAY CONTROLLER - NO AMP BUILT IN

MIX2	.625 OD x 2 IN BRUSH-OVERALL LENGTH 2.5 IN
MIX7-WAND	7 INCH WIRE TWISTED BRUSH - STAINLESS STEEL 13.5 inches OVERALL LENGTH
NV1032HNDL	BLACK HANDLE FOR NEEDLE VALVE
NV1032SETS	SET SCREW FOR HANDLE
NV18	NV2SV-B, 6.5T, 1/8M, 10-32F, RB
P56	PUMP WITH SANTOPRENE SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND EXHAUST BARB
P56K	PUMP WITH KALREZ SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND EXHAUST BARB
P56V	PUMP WITH VITON SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND EXHAUST BARB
PBS-12V	Push button switch with 12 volt led light
PL15NB	1/4 IN BLACK BACK PLATE FOR TANK-15N-B
PL15NB-IN	1/4 IN BLACK INSERT PLATE FOR TANK-15N-B CAVITY
PS14QF-55-FH	PRESSURE SWITCH - 1/4 QUICK FIT - 55 PSI
PSH-12V-40F	PRESSURE SWITCH AND HARNESS FOR LVRC-12V-40F-RED WIRES
PVCV34FM	PVC VALVE 3/4in FPT X 3/4in MPT
QF14P	MALE CON. 1/4in TUBE X 1/4in MPT POLYPROPYLENE
S14201	1/4 20 Pan Head Screw - 1 inch Stainless
S1420125	1/4 20 Pan Head Screw 1 and 1/4 inch Stainless
S142058-VS	1/4-20 X 5/8 PHIL TRUSS MACHINE SCREW 18-8 W/#516 VIBRASEAL ORANGE PATCH
SC1212	S.S. COUPLER 1/2in BY 1/2in
SEL12F	S.S. ELBOW 1/2in FPT X 1/2in FPT
SH-12V-40F	SWITCH HARNESS -ON/OFF- FOR LVRC-12V-40F-GRAY, ORANGE AND YELLOW WIRES
SMQC-FT	PLATE QUICK CONNECT FPT
SMQC-M	PLATE QUICK CONNECT MPT
SSAXLE15	STAINLESS STEEL AXLE 15.625 INCHES LONG BY 5/8 INCH IN DIAMETER DRILLED AND BEVELED
SSC2.8-3.8	WORM GEAR CLAMP, S/S (2.81-3.75)
SSC38	WORM GEAR CLAMP, S/S (.25-.63)
SSN126	1/2 IN X 6 IN 304 STAINLESS PIPE TBE
SSP12	STAINLESS STEEL AXLE PLATE - 2.5 in X 1 in - 2 HOLE
SSST	SCREEN DISC .687 DIA. 10X10 MESH @ .020 DIA. 300SS
SST12	1/2in FPT 304 S.S. TEE
ST6540SS	VEEJET NOZZLE S.S. 6540
STR38-IL	IN LINE STRAINER 3/8 BARB 20 MESH 304 STAINLESS EDPM GSKT
STR38-ILS-80	REPLACEMENT SCREEN FOR STR38-IL - 80 MESH
TANK-15N-B	15 GALLON BATTERY TANK NATURAL IN COLOR
TANK-15N-B-CVR	15 GALLON NATURAL BATTERY TANK COVER
TSW150	THERMAL SWITCH 150 DEGREE
W15	NONMARKING WHEEL FOR PORTABLE UNITS
WC14RT14	INSULATED WIRE CONNECTOR - #14-16 RING TERMINAL - 1/4 INCH STUD